AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled)

2. (Previously Presented) A dental curing light as recited in claim 24, wherein said insulating layer comprises an air gap separating at least a portion of the first elongated solid metallic portion of the heat sink from the housing.

3. (Cancelled)

4. (Previously Presented) A dental curing light as recited in claims 23 or 24, the first elongated solid metallic portion of the heat sink comprising at least one of aluminum, brass, copper, steel, or silver.

5. (Previously Presented) A dental curing light as recited in claims 23 or 24, the first elongated solid metallic portion of the heat sink comprising a thermally-conductive ceramic comprising at least one metal oxide.

6. (Previously Presented) A dental curing light as recited in claims 23 or 24, the light source comprising at least one LED.

7. (Previously Presented) A dental curing light as recited in claims 23 or 24, further comprising a lens sized and configured so as to focus light emitted from the light source in a desired manner.

8. (Previously Presented) A dental curing light as recited in claims 23 or 24, the light source being powered by and external power source.

9. (Previously Presented) A dental curing light as recited in claims 23 or 24, further comprising an integral battery pack for powering the light source.

10. (Previously Presented) A dental curing light as recited in claims 23 or 24, wherein said housing comprises one or more controls for selectively activating the light source.

11. (Previously Presented) A dental curing light as recited in claims 23 or 24, wherein the second elongated polymer-based portion of the heat sink makes physical contact with the electronic circuitry.

12. (Cancelled)

13. (Cancelled)

14. (Previously Presented) A dental curing light as recited in claims 23 or 24, wherein the second elongated polymer-based portion of the heat sink comprises at least one of an epoxy-based or silicone-based resin.

15. (Previously Presented) A dental curing light as recited in claims 23 or 24, wherein the second elongated polymer-based portion of the heat sink comprises at least one polymer and at least one heat conductive filler.

16. (Previously Presented) A dental curing light as recited in claims 23 or 24, wherein the second elongated polymer-based portion of the heat sink comprises at least one of a solid, liquid or gel.

17 – 22 (Cancelled)

23. (Currently Amended) A dental curing light, comprising:

an elongated hollow housing having a proximal end and a distal end, with a handle portion disposed between the proximal and distal ends;

a light source disposed at the distal end of the housing;

electronic circuitry disposed within the handle portion of the housing for controlling the light source; and

a heat sink disposed within the elongated hollow housing for transferring heat generated by the light source away from the distal end and for dissipating the heat that is transferred away from the light source, said heat sink comprising first and second portions which are juxtaposed end-to-end and which together essentially fill the elongated hollow housing,

the first portion of the heat sink comprising a first elongated solid metallic portion having proximal and distal ends, said distal end in thermal contact with the light source and extending from the light source and essentially filling the hollow elongated housing from the distal end to the handle ~~through at least a~~ portion of the elongated housing;

the second portion of the heat sink comprising a second elongated portion comprised of a polymer-based material that is not electrically conductive, said second portion being juxtaposed and in thermal contact with the first elongated solid metallic portion at its proximal end, said second elongated portion extending through and essentially filling said handle portion of the hollow housing and surrounding at least a portion of the electronic circuitry contained therein.

24. (Currently Amended) A dental curing light, comprising:

an elongated hollow housing having a proximal end and a distal end, with a handle portion disposed between the proximal and distal ends;

a light source disposed at the distal end of the housing;

electronic circuitry disposed within the handle portion of the housing for controlling the light source; and

a heat sink disposed within the elongated hollow housing for transferring heat generated by the light source away from the distal end and for dissipating the heat that is transferred away from the light source, said heat sink comprising first and second portions which are juxtaposed end-to-end and which together essentially fill the elongated hollow housing,

the first portion of the heat sink comprising a first elongated solid metallic portion having proximal and distal ends, said distal end in thermal contact with the light source and extending from the light source and essentially filling the hollow elongated housing from the distal end to the handle ~~through at least a~~ portion of the elongated housing;

the second portion of the heat sink comprising a second elongated portion comprised of a polymer-based material that is not electrically conductive, said second portion being juxtaposed and in thermal contact with the first elongated solid metallic portion at its proximal end, said second elongated portion extending through and essentially filling said handle portion of the hollow housing and surrounding at least a portion of the electronic circuitry contained therein; and

an insulating layer surrounding the first elongated solid metallic portion so as to insulate it from the housing.